

Appl No.: 10/008989
Amtd. Dated 12/17/2003
Reply to Office Action of July 18, 2003

REMARKS/ARGUMENT

Applicants acknowledge the election of claims 1-69 and the withdrawal of claims 70-76 from prosecution at this time, without prejudice to the filing of a divisional application. No change in inventorship is believed to be necessary.

The abstract has been rewritten in compliance with 35 CFR 1.72 which states "[t]he abstract filed under 35 U.S.C. 111 may not exceed 150 words in length."

In claim 1, line 2, "arts" has been changed to - - parts - -, correcting a typographical error.
Claim 50 has been cancelled as duplicative of claim 55.
Claims 60-69 have also been cancelled and need not be further addressed herein.

Allowable Subject Matter

Applicants acknowledge with appreciation the examiner's identification of allowable subject matter in claim 27. Claim 27 as originally filed has been re-written in independent form as claim 77(new). Claim 27 remains in the case in view of the amendments to its parent claims, discussed below.

Claim Rejections – 35 USC § 112

In claim 9, the phrase "particularly plasma and red blood sells (RBCs)" has been deleted. The potential ambiguity noted by the examiner has been eliminated thereby. Claim 11 has been made dependent from claim 10, rather than claim 9, thus providing proper antecedent basis for the limitations of claim 11, as noted by the examiner. It is believed that the rejection of the claims under 35 USC § 112 may be withdrawn.

Claim Rejections – 35 USC § 102

Claims 1-26, 28-35, and 40-57 are rejected as being anticipated by Judson et al. (US 3,489, 145). Currently amended claim 1 distinguishes over Judson et al. in that Judson et al. does not show a fluid inlet channel having an inlet channel connected to a proximal end of a

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separation channel. In Judson, the inlet channel is completely circumferential and connects to the separation channel at all points around the circumference of the rotor. Being thus axially uniform, Judson does not teach a separation channel having distinguishable proximal and distal ends. Consequently, Judson does not show a first separated fluid outlet channel having a first height, and a second separated fluid outlet channel having a second height, the second outlet channel being adjacent the distal end of the separation channel, and the first outlet channel being proximal from the second outlet channel. Since Judson does not have the defined structure, which induces a circumferential flow of composite fluid from the proximal end of the separation channel to the distal end of the separation channel, Judson does not teach or suggest that the height of the second outlet channel should be less than the height of the first outlet channel. Claim 1 should be allowed. Claims 2-26, 28-35 and 40-56 should be allowed with Claim 1, from which these claims depend. Claim 27 should be allowed both by reason of the amendments to claim 1 and for the reasons given for allowance of originally filed claim 27, now claim 77.

Claims 5, 12-14, 25, 26, and 45 have been amended to remove a duplicative limitation now found in amended claim 1. Claims 22, 25, 31, 41, and 42 have been amended to correct minor grammatical errors.

In regard to currently amended claim 40, Judson does not disclose a balance channel that would have a geometry that counter balance both the first and second outlet channels. See, e.g., Specification page 31, beginning with line 24.

In regard to claim 44, the amendment to claim 1, whereby the separation channel has both proximal and distal ends and wherein the inlet channel is in fluid communication with the proximal end of the separation channel, excludes the interpretation given to Judson et al. by the examiner, since the inlet channel does not enter around the entire circumference, and a diametrically opposed wider portion is not therefore also circumferential. Claim 44 should be allowed.

In regard to currently amended claim 45, Judson does not show an interface wall extending radially outwardly into the circumferential channel between the first and second outlet channels. See, e.g., Figure 11. Claim 45, as amended, should be allowed.

Currently amended claim 57 distinguishes over Judson et al. in the same manner as does currently amended claim 1. Judson et al. does not show a fluid inlet channel having an inlet

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channel connected to a proximal end of a separation channel. In Judson, the inlet channel is completely circumferential and connects to the separation channel at all points around the circumference of the rotor. Being thus axially uniform, Judson does not teach a separation channel having distinguishable proximal and distal ends. Consequently, Judson does not show a first separated fluid outlet channel having a first height, and a second separated fluid outlet channel having a second height, the second outlet channel being adjacent the distal end of the separation channel, and the first outlet channel, being proximal from the second outlet channel. Since Judson does not have the defined structure, which induces a circumferential flow of composite fluid from the proximal end of the separation channel to the distal end of the separation channel, Judson does not teach or suggest that the height of the second outlet channel should be less than the height of the first outlet channel. Claim 57 should be allowed.

Claims 1-21, 36-39 and 46 are rejected over Burd et al. (US 5,186,844). Currently amended claim 1 distinguishes over Burd et al. in that Burd et al. does not show a first separated fluid outlet channel having a first height, and a second separated outlet fluid channel having a second height, the second outlet channel being adjacent the distal end of the separation channel, and the first outlet channel being proximal from the second outlet channel. Burd does not teach or suggest that the height of the second outlet channel should be less than the height of the first outlet channel. Claim 1 should be allowed.

Claims 2-21 and 46 should be allowed with claim 1.

Claim 36, as currently amended, further distinguishes over Burd et al., which does not show a third separated fluid outlet channel having a third height, and a fourth separated fluid outlet channel having a fourth height, the fourth outlet channel being adjacent the distal end of a second separation channel, and the third outlet channel being proximal from the fourth outlet channel. Burd does not teach or suggest that the height of the fourth outlet channel should be less than the height of the third outlet channel.

Claims 37-39 should be allowed both with claim 1 and with claim 36.

Claims Rejection – 35 USC § 103

Applicants confirm that the subject matter of the various claims was commonly owned at the time the inventions covered therein were made.

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Claims 58 and 59 are rejected under 35 USC § 103(a) over Judson in view of Ontko et al. (US 3,304,990). As pointed out above, currently amended claim 1 distinguishes over Judson. Ontko et al. supplies none of the deficiencies of Judson with respect to claim 1. Consequently, claims 58 and 59 should be allowed with their parent claim.

Double Patenting

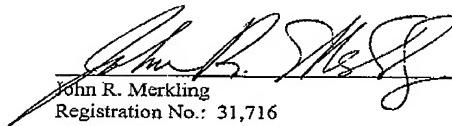
The examiner has provisionally rejected claims 61-63 as potentially duplicating claims in co-pending 10/005,341. Since claims 60-69 have been canceled from this case, this grounds for rejection is moot.

In view of the forgoing amendments to the specification (abstract) and the claims, it is believed that all outstanding matters have been addressed and that the case is in condition for allowance. The examiner's reconsideration of the case is, therefore, earnestly solicited. If the examiner believes a telephone conference would advance the prosecution of the case, the examiner is urged to call the undersigned attorney.

Respectfully submitted,

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Date



John R. Merkling
Registration No.: 31,716
Gambro, Inc.
10810 W. Collins Avenue
Lakewood, CO 8015
(303) 239-2362